

Amendments to the claims:

1. (currently amended) ~~An electrode~~ current collector for use in batteries, comprising:
 ~~an electrically conductive~~ reticulated substrate, ~~said substrate containing open~~ having
 surfaces defining circuitous pores ~~which are bounded by surfaces;~~ and
 a layer of a lead-tin containing alloy applied to ~~said~~ the surfaces.
2. (cancelled)
3. (cancelled)
4. (currently amended) The ~~electrode~~ current collector according to claim 1, ~~in which~~
 ~~said~~ wherein the reticulated substrate ~~contains~~ includes carbon.
5. (currently amended) The ~~electrode~~ current collector according to claim 4, ~~in which~~
 ~~said~~ wherein the carbon includes a reticulated vitreous carbon ~~forming said pores~~.
6. (currently amended) The ~~electrode~~ current collector according to claim 5, ~~in which~~
 ~~said~~ wherein the vitreous carbon ~~contains between~~ includes about 20 to about 30 pores per inch of
 measured length.
7. (cancelled)
8. (currently amended) The ~~electrode~~ current collector according to claim 1, ~~in which~~
 ~~said~~ wherein the reticulated substrate includes a conductive metal ~~formed as a reticulated~~
 structure.
9. (currently amended) The ~~electrode~~ current collector according to claim 8, ~~in which~~
 ~~said~~ wherein the conductive metal ~~contains~~ includes aluminum.

10. (currently amended) The ~~electrode~~current collector according to claim 1, ~~in which said electrode includes structure to~~further comprising a frame mountable and form a functional electrode in a battery.

11. (currently amended) The ~~electrode~~current collector according to claim 1, ~~in which the~~wherein the tin content of ~~said~~the alloy includes ~~between about 0.2% to about 3% by weight of said~~the alloy.

12. (currently amended) The ~~electrode~~current collector according to claim 1, ~~in which~~wherein the tin content of ~~said~~the alloy includes ~~between about 0.5% to about 2% by weight of said~~the alloy.

13. (currently amended) The ~~electrode~~current collector according to claim 1, ~~in which~~wherein the surface area of the pores ~~in said substrate~~surfaces includes ~~between about 500 to 20,000 square meters per cubic meter of the reticulated~~substrate.

14. (currently amended) The ~~electrode~~current collector according to claim 1, ~~in which the dimension of~~wherein the thickness of ~~said~~the alloy includes ~~between about 20 to 2,000 microns.~~

15. (currently amended) The ~~electrode~~current collector according to claim 1, further comprising:
_____ in which a portion of said surfaces is coated with an electrically conductive lead-
containing paste coating at least a portion of the layer of lead-tin alloy thereby configuring the
current collector as, whereby to form a lead-acid battery plateelectrode.

16. (cancelled)

17. (currently amended) An electrode for use in lead-acid batteries, comprising:

a reticulated substrate formed as a reticulated rigid structure having surfaces defining circuitous pores with substantial surface area, said substrate being electrically conductive;

a layer of lead-tin alloy deposited on ~~said structure in intimate conductive contact with the surfaces of said pores;~~ and

a layer of a lead-containing paste on ~~said~~ the layer of lead-tin alloy.

18. (currently amended) The electrode according to claim 17, ~~in which said~~ wherein the reticulated substrate includes aluminum ~~or vitreous carbon~~.

19. (cancelled)

20. (currently amended) A battery, comprising:

a housing;

a pair of ~~spaced apart~~ electrodes fixed within the housing, each of the electrodes having an ~~electrically conductive~~ reticulated substrate, ~~said substrate containing open pores which are bounded by~~ having surfaces defining circuitous pores, and a layer of a ~~lead-tin containing metal~~ alloy applied to ~~said~~ the surfaces, and an active material coating at least a portion of the metal alloy;

an electrolyte contacting ~~said~~ the electrodes and bridging the space between them; and terminal connections ~~to connect said~~ connected to the electrodes into a circuit.

21. (withdrawn) A method of producing an electrode, comprising adjusting the substrate to a needed rise; uniformly coating the substrate with a layer of a lead-tin alloy; washing the coated substrate; and drying of the coated substrate.

22. (withdrawn) The method of producing an electrode according to claim 21, wherein the uniformly coating the substrate includes applying the coating by electrodeposition on the substrate.

23. (withdrawn) The method of producing an electrode according to claim 22, wherein the coating by electrodeposition includes an electrodeposition solution containing (Sn(BF.sub.4).sub.2), (Pb(BF.sub.4).sub.2), deionized water, (H.sub.3BO.sub.3), (HBF.sub.4) and gelatin.

24. (withdrawn) The method of producing an electrode according to claim 22, wherein the uniformly coating the substrate by electrodeposition includes establishing a cell voltage of 0.3-0.7 V and a temperature of 20.degree.-25.degree. C.
25. (withdrawn) The method of producing an electrode according to claim 21, wherein the washing includes washing the coated substrate with a distilled water rinse, an alkaline wash, a distilled water wash, an acetone wash and an acetone dipping.
26. (withdrawn) The method of producing an electrode according to claim 21, wherein the drying includes drying the coated substrate in a nitrogen atmosphere.
27. (new) The current collector according to claim 1, wherein the reticulated substrate comprises a conductive material.
28. (new) The current collector according to claim 17, wherein the paste includes lead oxide.
29. (new) The current collector according to claim 17, wherein the paste includes lead sulfate and lead oxide.
30. (new) The current collector of claim 17, wherein the paste includes lead sulfate.
31. (new) The electrode according to claim 17, wherein the reticulated substrate includes vitreous carbon.